



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/069,876	03/01/2002	Oleg Grudin	14836-1US JA/AD	5674
20988	7590	10/07/2003	EXAMINER	
OGILVY RENAULT 1981 MCGILL COLLEGE AVENUE SUITE 1600 MONTREAL, QC H3A2Y3 CANADA			THOMPSON, JEWEL VERGIE	
			ART UNIT	PAPER NUMBER
			2855	

DATE MAILED: 10/07/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/069,876

Applicant(s)

GRUDIN ET AL.

Examiner

Jewel V Thompson

Art Unit

2855

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 6.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Priority***

1. Acknowledgement is made of the Priority filed March 1, 2002, which has been made of record and placed in the file.

***Information Disclosure Statement***

2. Acknowledgement is made of the Information Disclosure Statement filed March 6, 2003, which has been made of record and placed, in the file.

**Election/Restriction**

3. Applicant's election without traverse of claims 1-10 in Paper No. 7 is acknowledged.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-5 and 8-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lew (5,186,056) in view of Kizawa (5,979,247).

**Regarding claim 1**, Lew teaches a flow transducer apparatus with immunity to vibration or acceleration, the apparatus comprising: a plurality of flow transducer elements (10, 11) each sensitive to vibration or acceleration in at least one direction and generating an output signal proportional to flow (col. 3, lines 14-43) and to a perturbation component (4 and 5) resulting from the vibration or acceleration; a plurality of flow passages with constant cross-section (fig.1) leading gas flow from an inlet to an outlet through at least one of the elements (fig. 1), wherein the flow is always in a single, well-defined direction at one time (fig. 1); and circuitry receiving the output signal of each of the elements and outputting a vibration or acceleration immune output signal corresponding to the flow with the perturbation component substantially cancelled (col. 3, lines 27-50). Lew fails to teach that the fluid is a gas; the elements being arranged on a common support and connected to the passages such that at least one of the perturbation component and the flow is measured differently by the elements. Kizawa

Art Unit: 2855

teaches a flow sensor measuring the flow rate of gas (abstract) and having pressure ports arranged on a common support (fig. 1). It would have been obvious to one having ordinary skill in the art at the time that the invention was made to have used the positioning of the pressure ports of Kizawa in the flow meter of Lew for the purpose of extending in parallel the flow of gas.

**Regarding claim 2,** Lew teaches the flow passages cause the flow to be equal through the elements (col. 4, lines 3-12)

**Regarding claim 3,** Lew teaches the flow is split between the elements (fig. 1)

**Regarding claim 4,** Lew fails to teach the flow passes serially through the elements. Kizawa teaches the flow passes serially through the elements (fig. 1). It would have been obvious to one having ordinary skill in the art at the time that the invention was made to have positioned the elements as that of Kizawa in the flow meter of Lew for the purpose of having uniformed flow measurement.

**Regarding claim 5,** Lew teaches the two elements are provided that are sensitive to vibration or acceleration ((10 and 11) along only one axis and are arranged parallel to one another, the flow passages being arranged such that the flow is in opposite directions through the elements (fig. 1)

**Regarding claim 8,** Lew teaches the elements are sensitive to vibration or acceleration along only on axis (fig. 2)

**Regarding claim 9,** Lew teaches the apparatus comprises two of the elements (fig. 1)

***Claim Rejections - 35 USC § 103***

4. Claims 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lew in view of Kizawa as applied to claim 1 above, and further in view of Bump et al (5,975,126).

**Regarding claim 10**, Lew in view of Kizawa fails to teach the elements comprise thermoanemometer-type transducers. Bump teaches upstream (20) and downstream (21) temperature sensing elements. It would have been obvious to one having ordinary skill in the art at the time that the invention was made to have used the temperature sensors of Bump in the flow meter of Lew for the purpose measuring the flow by taking the difference of the temperatures.

***Allowable Subject Matter***

5. Claims 6 and 7 are allowed.

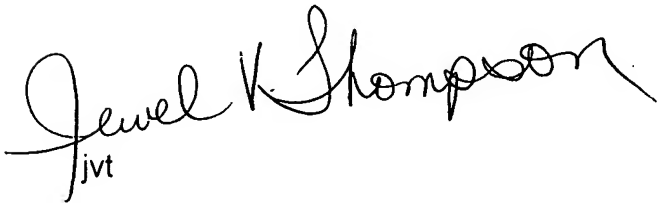
Art Unit: 2855


**Conclusion**

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jewel V Thompson whose telephone number is 703-308-6726. The examiner can normally be reached on 7-4:30, off alternate Mondays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Lefkowitz can be reached on 703-305-4816. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 308-1134.

  
jvt

  
EDWARD LEFKOWITZ  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2800